#### IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION

MAXELL, LTD.,

Plaintiff,

Civil Action No. 6:20-cv-00646

V.

COMPLAINT AND DEMAND FOR JURY TRIAL

Defendant.

#### **COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff Maxell, Ltd. ("Maxell"), by and through its undersigned counsel, files this complaint under 35 U.S.C. § 271 for Patent Infringement against Defendant Apple Inc. ("Apple") and further alleges as follows, upon actual knowledge with respect to itself and its own acts, and upon information and belief as to all other matters.

#### **OVERVIEW**

1. This is an action for patent infringement by Maxell. Founded in 1961 as Maxell Electric Industrial Co., Ltd., Maxell is a leading global manufacturer of information storage media products, including magnetic tapes, optical discs, and battery products such as lithium ion rechargeable micro batteries and alkaline dry batteries, and the company has over 50 years of experience producing industry-leading recordable media and energy products for both the consumer and the professional markets. Maxell is also a leading manufacturer of projectors and lenses and additionally sells various other devices, such as Bluetooth headsets, wireless charging solutions, etc.

- 2. Maxell has built up an international reputation for excellence and reliability, for pioneering the power supplies and digital recording for today's mobile and multi-media devices, and leading the electronics industry in the fields of storage media and batteries.
- 3. Since being one of the first companies to develop alkaline batteries and Blu Ray camcorder discs, Maxell has always assured its customers of industry leading product innovation and is one of the world's foremost suppliers of memory, power, audio, and visual goods. Maxell's well-recognized logo and iconic "blown away" image exemplify the reputation Maxell carefully developed in these markets.



4. As more fully described below, in 2009 Hitachi, Ltd. assigned much of its consumer product-facing intellectual property to Hitachi Consumer Electronics Co., Ltd. Then, in 2013, Hitachi Consumer Electronics Co., Ltd. assigned the intellectual property, including the patents in this case, to Hitachi Maxell, Ltd., which later assigned the patents to Maxell as a result of a reorganization and name change. This reorganization was an effort to align its intellectual property with the licensing, business development, and research and development efforts of Maxell, including in the mobile and mobile-media device market (Hitachi, Ltd. and Hitachi Consumer Electronics Co., Ltd. are referred to herein collectively as "Hitachi"). Maxell continues to sell

products in the mobile device market including wireless charging solutions, wireless flash drives, multimedia players, storage devices, and headphones. Maxell also maintains intellectual property related to televisions, computer products, tablets, digital cameras, and mobile phones. As a mobile technology developer and industry leader, and due to its historical and continuous investment in research and development, including in the state of Texas, Maxell owns a portfolio of patents related to such technologies and actively enforces its patents through licensing and/or litigation. Maxell is forced to bring this action against Apple as a result of Apple's knowing and ongoing infringement of Maxell's patents as further described herein.

- 5. Since at least June 2013, Apple has been aware of Maxell's patents and has had numerous meetings and interactions regarding its infringement of these patents. These meetings included Apple's representatives being provided with detailed information regarding Maxell's patents, the developed technology, and Apple's ongoing use of this patented technology. Through this process, Apple's representatives requested and received detailed explanations regarding Maxell's patents and allegations. A resident of Marshall, Texas, Alan Loudermilk, was involved in these extensive licensing negotiations with Apple on Maxell's behalf.
- 6. Maxell believed that the parties could reach a mutually beneficial solution and to that end considered a potential business transaction and continued to answer multiple inquiries from Apple over the course of several years. Apple elected, however, not to enter into an agreement and did not license Maxell's patents. Accordingly, in 2019, Apple brought litigation against Apple asserting infringement of ten other patents from the same portfolio of which the currently asserted patents are a part. Case No. 5:19-cv-00036-RWS (E.D. Tex.). Yet, Apple has still elected not to license Maxell's patents and that litigation is pending. The result is that Apple has continued, and continues today, to make, use, sell and offer for sale Maxell's patented technology without license.

- 7. Since 2014, Maxell has had regular and continuous business in Texas. As a result of such business dealings and hopes to expand those and other business dealings, a Maxell affiliate, Maxell Research and Development America, LLC ("MRDA"), was founded in Marshall, Texas. MRDA is part of a joint venture with another business in Marshall, and the entities work together on research and development related to IoT, mobile, media and battery technologies. MRDA's ongoing projects include, for example, the research and development of lensless camera technology, which Maxell hopes will be utilized for sensor and camera technology in smartphones. Maxell engineers and executives regularly travel to Marshall to meet and work to expand the research and development activities, business, and investments being made by Maxell, MRDA, and their business partners in Texas to further the goals of these companies.
- 8. In addition to the 2019 litigation filed against Apple, noted above, Maxell has filed five other lawsuits in the Eastern District of Texas in order to enforce the patent portfolio of which the currently asserted patents are a part. Two of the patents accused of infringement herein, including U.S. Patent Nos. 8,982,086 and 7,203,517 were previously asserted in the Eastern District of Texas against Huawei Device Co., Ltd., Huawei Device USA, Inc., ZTE (USA), Inc., ZTE Corporation, and/or ASUSTeK Computer Inc. One case, involving other patents from Maxell's portfolio but not any of the asserted patents, *Maxell Ltd. v. ZTE (USA) Inc.*, Case No. 5:16-cv-00179-RWS, culminated in a ten day jury trial. At this point, all of Maxell's cases, except that against Apple, have been resolved and dismissed.

#### **PARTIES**

9. Plaintiff Maxell, Ltd. is a Japanese corporation with a registered place of business at 1 Koizumi, Oyamazaki, Oyamazaki-cho, Otokuni-gun, Kyoto, Japan.

10. On information and belief, Defendant Apple Inc. is a California corporation having a principal place of business located at One Apple Park Way Cupertino, California 95014 and regular and established places of business at 12545 Riata Vista Cir, Austin, Texas and 5501 W. Parmer Lane, Austin, Texas, as well as other locations in Texas (*e.g.*, 2901 S. Capital of Texas Hwy, Austin, Texas and 3121 Palm Way, Austin, Texas). Apple offers and sells its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas, including in the judicial Western District of Texas. Apple may be served with process through its registered agent for service in Texas: CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

#### NATURE OF THE ACTION, JURISDICTION, AND VENUE

- 11. Maxell brings this action for patent infringement under the patent laws of the United States, 35 U.S.C. § 271 *et seq*.
- 12. This Court has subject matter jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the action arises under the patent laws of the United States.
- 13. This Court has personal jurisdiction over Apple. Apple conducts business and has committed acts of direct and indirect patent infringement in this District, the State of Texas, and elsewhere in the United States. Moreover, Apple is registered to do business in the State of Texas, has offices and facilities in the State of Texas and this District, and actively directs its activities to customers located in the State of Texas and this District.
- 14. Venue is proper in this District pursuant to 28 U.S.C. § 1400(b). Apple has regular and established places of business in this District, including at 12545 Riata Vista Cir, Austin, Texas and 5501 W. Parmer Lane, Austin, Texas, as well as Apple Stores located at, at least, 2901 S.

Capital of Texas Hwy, Austin, Texas and 3121 Palm Way, Austin, Texas. Thus, Apple is deemed to reside in this District, has committed acts of infringement described herein in this District, and has purposely transacted business involving the accused devices in this District. Further, there is significant local interest in view of Apple being one of the largest private employers in this District and Apple has received a significant amount of tax subsidies in this District.

Apple, MRDA's presence in Marshall, Apple's operations in Texas, and the prior litigation concerning Maxell's patent portfolio, Maxell believed the Eastern District of Texas to be the proper, and most convenient, venue for it to litigate its patent claims against Apple. Accordingly, in 2019, Maxell filed its first suit against Apple in that district. Since such case was filed, however, Apple closed its store in the Eastern District of Texas. Apple continues, however, to have regular and established places of business in the Western District of Texas, as set forth above. In view of the proximity of the Western District to Marshall, it is now the proper, most convenient, venue for Maxell to litigate its patent claims against Apple.

#### COUNT 1 - INFRINGEMENT OF U.S. PATENT NO. 7,203,517

- 16. Maxell incorporates paragraphs 1-15 above by reference.
- 17. U.S. Patent No. 7,203,517 (the "'517 Patent," attached hereto at Exhibit 1) duly issued on April 10, 2007 and is entitled *Mobile Communication Terminal Device*.
- 18. Maxell is the owner by assignment of the '517 Patent and possesses all rights under the '517 Patent, including the exclusive right to recover for past and future infringement.
- 19. At the time of the '517 Patent, there were some mobile devices that included multiple communication interfaces for purposes of communicating with, for example, external devices. The mobile devices would switch between the communication interfaces to provide

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various services (e.g., cellular or WiFi). But conventional methods for switching among the communication interfaces were based on availability and favorability of a particular communication interface. Further, the use of such communication interfaces could be affected when the mobile devices were traveling at a high rate of speed (e.g., in a train or car). Because availability and favorability of communication interfaces is affected by movement of the mobile device, conventional methods caused communication instability by relying on just these factors when switching between communication interfaces.

- 20. The '517 Patent solved the problem of communication instability by selecting a suitable physical interface based on three factors: (1) communication interface availability; (2) device movement speed; and (3) position of the mobile device. The combination of these three factors ensures that switching between communication interfaces does not cause connection instability by only causing the switch when the conditions favor a better connection after the switch instead of causing unnecessary and frequent switching, For example, if the mobile device is moving at a high speed, the mobile device embodying the invention of the '517 Patent may make a determination to not switch communication interfaces even if another communication interface becomes available because this interface may only be available for a short period of time due to the moving speed of the mobile device.
- 21. Apple has directly infringed one or more claims of the '517 Patent in this District and elsewhere in Texas, including at least claims 9-10 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having wireless functionality running materially similar software to iOS 12/13/14, including, without limitation, the iPhone 7 (A1660/A1778), iPhone 7 Plus (A1661/A1784), iPhone 8 (A1863/A1905), iPhone 8 Plus

(A1864/A1897), iPhone XR (A1984), Apple iPhone XS (A1920), iPhone XS Max (A1921), iPhone 11 (A2111), iPhone 11 Pro (A2160), iPhone 11 Pro Max (A2161), iPhone SE (A1662/A1723/A2275/A2296), Apple Watch Series 5 (A2094/A2095), Apple Watch Series 3 (A1860/A1861), iPad mini 5 (A2124/A2126), iPad Pro (11") (A2013/A2068/A2230), iPad 7th generation (A2198/A2200), iPad 6th generation (A1954), iPad Pro (12.9") (3rd /4th generation) (A2014/A1895/A2229/A2069/A2232), and iPad Air 3 (A2123/A2153) (collectively, "the '517 Accused Products'). Attached as Exhibit 6 is a representative claim chart for the '517 Accused Products showing infringement of claims 9-10 of the '517 Patent by exemplary '517 Accused Products. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '517 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

Apple has indirectly infringed at least claims 9-10 of the '517 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '517 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '517 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <a href="https://support.apple.com/en\_us/HT205296">https://support.apple.com/en\_us/HT205296</a>. For example, on its website, Apple instructs its customers to use "Wi-Fi Assist" and makes sure that "Wi-Fi Assist is on by default":

#### About Wi-Fi Assist

With iOS 9 and later, you can use Wi-Fi Assist to automatically switch to cellular when you have a poor Wi-Fi connection.

#### How Wi-Fi Assist works

With Wi-Fi Assist, you can stay connected to the Internet even if you have a poor Wi-Fi connection. For example, if you're using Safari with a poor Wi-Fi connection and a webpage doesn't load, Wi-Fi Assist will activate and automatically switch to cellular so that the webpage continues to load. You can use Wi-Fi Assist with most apps like Safari, Apple Music, Mail, Maps, and more.

When Wi-Fi Assist is activated, you'll see the cellular data icon in the status bar on your device.

Because you'll stay connected to the Internet over cellular when you have a poor Wi-Fi connection, you might use more cellular data. For most users, this should only be a small percentage higher than previous usage. If you have questions about your data usage, learn more about managing your cellular data or contact Apple Support.

You can use Wi-Fi Assist with any iOS device with iOS 9 or later, except for these models: iPhone 4s, iPad 2 Wi-Fi+Cellular, iPad (3rd generation) Wi-Fi+Cellular, and iPad mini (1st generation) Wi-Fi+Cellular.

#### Turn Wi-Fi Assist on or off

Wi-Fi Assist is on by default. If you don't want your iOS device to stay connected to the Internet when you have a poor Wi-Fi connection, you can disable Wi-Fi Assist. Go to Settings > Cellular or Settings > Mobile Data. Then scroll down and tap the slider for Wi-Fi Assist.

See <a href="https://support.apple.com/en-us/HT205296">https://support.apple.com/en-us/HT205296</a>. Exhibit 6 provides additional citations to, and excerpts from, exemplary relevant Apple web pages that demonstrate Apple's specific intent for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '517 Patent pursuant to 35 U.S.C. § 271(b).

- 23. Apple has indirectly infringed at least claims 9-10 of the '517 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '517 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '517 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.
- 24. For example, the '517 Accused Products include hardware (Wi-Fi chipset, cellular chipset, transceivers, A12 processor, antennas, and accelerometer) and software (Wi-Fi assist

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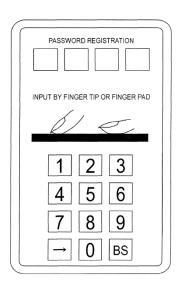
software, iOS software to switch between Wi-Fi and cellular connection, cellular modem software to determine mobility state). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '517 Patent pursuant to 35 U.S.C. § 271(c).

- 25. Apple has been on notice of the '517 Patent since, at least, May 17, 2018 based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '517 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 9-10 of the '517 Patent.
- Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '517 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '517 Patent, and that the '517 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '517 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '517 Patent.
  - 27. Maxell has been damaged by Apple's infringement of the '517 Patent.

#### COUNT 2 - INFRINGEMENT OF U.S. PATENT NO. 8,982,086

- 28. Maxell incorporates paragraphs 1-27 above by reference.
- 29. U.S. Patent No. 8,982,086 (the "'086 Patent," attached hereto at Exhibit 2) duly issued on March 17, 2015 and is entitled *Information Processing Apparatus*.
- 30. Maxell is the owner by assignment of the '086 Patent and possesses all rights under the '086 Patent, including the exclusive right to recover for past and future infringement.
- 31. The '086 Patent discloses techniques for unlocking information processing devices, such as smartphones, with convenience. For example, prior to the '086 Patent, one way of unlocking devices was by inputting a passcode that was preset by a user. This process would be time consuming and would require the user to memorize the passcode. Further, if the user has multiple devices he or she would need to memorize different passcodes or have the same passcode on all of the devices but increase the risk of the security breach of all the devices if another user learnt of the passcode.
- 32. The '086 Patent allowed users to conveniently execute an unlock operation on their devices by using the tip or pad of their fingers as shown below in Figure 11A of the '086 Patent:

FIG. 11A



33. Further, the '086 patent also allows users to associate specific operations with their fingertip and finger pad such that when a user uses his or her fingertip the device recognizes that the user is entering an input via the fingertip and executes a corresponding operation. This is further shown in Figure 12B of the '086 patent:

FIG. 12B

DIGIT		1	2	3	4	OPERATION
PASSWORD		0	5	2	8	_
INPUT METHOD	1	FINGER TIP	FINGER PAD	FINGER PAD	FINGER PAD	WAITING SCREEN
	2	FINGER TIP	FINGER TIP	FINGER TIP	FINGER TIP	MAIL CREATING SCREEN
	3	FINGER PAD	FINGER TIP	FINGER PAD	FINGER TIP	APPLICATION STARTING

Apple has directly infringed one or more claims of the '086 Patent in this District and elsewhere in Texas, including at least claims 1-4 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least the iPhone 7 (A1660/A1778), iPhone 7 Plus (A1661/A1784), iPhone 8 (A1863/A1905), iPhone 8 Plus (A1864/A1897), iPhone SE (A1662/A1723/A2275/A2296), iPad mini 5 (A2133/A2124/A2126), iPad 6<sup>th</sup> generation (A1893/A1954), iPad 7<sup>th</sup> Generation (A2197/A2200), iPad Air 3 (A2152/A2123/A2153), MacBook Pro (16,3), MacBook Pro (16,2), MacBook Pro (16,1), MacBook Pro (15,4), MacBook Pro (15,1), MacBook Pro (15,2), MacBook Air (7,2), MacBook Air (8,1), MacBook Air (8,2), and MacBook Air (9,1) (collectively, "the '086 Accused Products'). Attached as Exhibit 7 is a representative claim chart for the '086 Accused Products showing infringement of claims 1-4 of the '086 Patent by exemplary '086 Accused Products. Maxell reserves the right to discover and

pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '086 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities

Apple has indirectly infringed at least claims 1-4 of the '086 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '086 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '086 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <a href="https://support.apple.com/en\_us/HT201371">https://support.apple.com/en\_us/HT201371</a>. For example, on its website, Apple instructs its customers to "Set up Touch ID" and "Use Touch ID":

#### Use Touch ID on iPhone and iPad

Learn how to set up and use Touch ID, a fingerprint identity sensor that makes it easy for you to get into your device.

Set up Touch ID	Use Touch ID	Manage settings

#### Set up Touch ID

Before you can set up Touch ID, you need to create a passcode for your device.\* Then follow these steps:

- 1. Make sure that the Home button and your finger are clean and dry.
- 2. Tap Settings > Touch ID & Passcode, then enter your passcode.
- 3. Tap Add a Fingerprint and hold your device as you normally would when touching the Home button.
- Touch the Home button with your finger—but don't press. Hold it there until you feel a quick vibration, or until you're asked to lift your finger.



#### Use Touch ID to unlock your iPhone or make purchases

After you set up Touch ID, you can use Touch ID to unlock your iPhone. Just press the Home button using the finger you registered with Touch ID.

#### Make purchases with Touch ID

You can use Touch ID instead of your Apple ID password to make purchases in the iTunes Store, App Store, and Apple Books. Just follow these steps:

- Make sure iTunes & App Store is turned on under
   Settings > Touch ID & Passcode. If you can't turn it on,
   you might need to sign in with your Apple ID in Settings
   > iTunes & App Store.
- 2. Open the iTunes Store, App Store, or Apple Books.
- 3. Tap something to buy. You'll see a Touch ID prompt.
- 4. To make a purchase, lightly touch the Home button.

#### Use Touch ID for Apple Pay

With an iPhone 6 or iPhone 6 Plus or later, you can use Touch ID to make Apple Pay purchases in stores, within apps, and on websites in Safari. You can also use Touch ID on your iPhone to complete website purchases from your Mac. If you have an iPad Pro, iPad Air 2 or iPad Mini 3 or later, you can use Touch ID for Apple Pay purchases within apps and on websites in Safari.

Need help using Touch ID?



#### Use Touch ID on Mac

If your Mac has <u>Touch ID</u>, you can use it to unlock your Mac, authorize purchases from the iTunes Store, the App Store, and Apple Books, and make purchases on the web using Apple Pay. You can also use Touch ID to sign into some third-party apps.

Touch ID is located at the top-right corner of the keyboard, next to the Touch Bar or row of function keys, depending on the model of your Mac.



See <a href="https://support.apple.com/en-us/HT201371">https://support.apple.com/guide/mac-help/touch-id-mchl16fbf90a/mac</a>. Exhibit 7 provides additional citations to, and excerpts from, exemplary relevant Apple web pages that demonstrate Apple's specific intent for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '086 Patent pursuant to 35 U.S.C. § 271(b)

- 36. Apple has indirectly infringed at least claims 1-4 of the '086 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '086 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '086 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.
- 37. For example, the '086 Accused Products include hardware (finger print sensor, application processor, and display) and software (Touch ID software). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented

process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '086 Patent pursuant to 35 U.S.C. § 271(c)

- 38. Apple has been on notice of the '086 Patent since, at least, May 17, 2018 based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '086 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 1-4 of the '086 Patent.
- 39. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '086 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '086 Patent, and that the '086 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '086 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '086 Patent.
  - 40. Maxell has been damaged by Apple's infringement of the '086 Patent.

#### COUNT 3 - INFRINGEMENT OF U.S. PATENT NO. 7,199,821

41. Maxell incorporates paragraphs 1-40 above by reference.

- 42. U.S. Patent No. 7,199,821 (the "'821 Patent," attached hereto at Exhibit 3) duly issued on April 3, 2007 and is entitled *Imaging Apparatus and Method for Controlling White Balance*.
- 43. Maxell is the owner by assignment of the '821 Patent and possesses all rights under the '821 Patent, including the exclusive right to recover for past and future infringement.
- 44. The '821 patent is directed to an imaging apparatus that has the ability to capture pictures with the correct color effect. Specifically, in order for a camera to capture and generate a picture of high quality with proper color, the camera needs to balance the different portions of the image. For example, if the camera is photographing a subject that is wearing a white shirt and has a colorful background, the camera will need to process the image signals in such a way that the white portion of the image is balanced with the colorful portion. This processing is referred to as white balancing of an image or white balance correction.
- 45. Conventional techniques prior to the '821 patent performed white balance corrections by constructing a feedback loop such that signals corresponding to the white portion and colored portions are distinguished to detect a white balance deviation and this detected deviation is then used to adjust the signals corresponding to the colored portions. But this technique does not create pictures of high quality under all conditions as the detected deviation may not be accurate if the colored portions of the image include a large part of the picture. Further, this technique does not account for additional variations during photography including brightness of the object being photographed, distance of the object from the camera, and zoom value.
- 46. The '821 patent solves these problems by implementing white balance correction that takes into account the distance of the object being photographed, a zoom value, and brightness of the object being photographed. For example, the '821 patent discloses an imaging apparatus

that includes an object distance detecting means, a zoom detecting means, and a brightness detecting means such that the apparatus corrects the white balance of the image signals based on the detected brightness, zoom, and distance values. Incorporating such a white balance correction technique ensures that the imaging apparatus generates high quality pictures despite varying conditions and control parameters.

47. Apple has directly infringed one or more claims of the '821 Patent in this District and elsewhere in Texas, including at least claims 1, 4, 6, and 7 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhone XS (A1920), iPhone XS Max (A1921), iPhone XR (A1984), iPhone 11 (A2111), iPhone 11 Pro (A2160), iPhone 11 Pro Max (A2161), iPhone SE (A1662/A1723/A2275/A2296), iPhone 8 Plus (A1864/A1897), iPhone 8 (A1863/ A1905), iPhone 7 Plus (A1661/A1784), iPhone 7 (A1660/A1778), as well as the iPad mini (5th gen.) (A2133/A2124/A2126), iPad Pro (12.9") (3rd / 4<sup>th</sup> generation) (A1876/A2014/A2229/A2069/A2232), iPad Pro 11" (A1980/A2013/A2068/ A2230), iPad (6<sup>th</sup> generation) (A1893/A1954), iPad (7<sup>th</sup> generation) (A2200/A2198), iPad Air (3<sup>rd</sup> gen.) (A2152/A2123/A2153), MacBook (10,1), MacBook Pro (15,1), MacBook products (MacBook (10,1), MacBook Pro (15,1), MacBook Pro (15,2), MacBook Pro (15,4), MacBook Pro (16,1), MacBook Pro (16,2), MacBook Pro (16,3), MacBook Air (7,2), MacBook Air (8,1), MacBook Air (8,2), and MacBook Air (9,2) (collectively, "the '821 Accused Products"). Attached as Exhibit 8 is a representative claim chart for the '821 Accused Products showing infringement of claims 1, 4, 6, and 7 of the '821 Patent by exemplary '821 Accused Products. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing

functionalities. For the avoidance of doubt, the '821 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

Apple has indirectly infringed at least claims 1, 4, 6, and 7 of the '821 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '821 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '821 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <a href="https://support.apple.com/en\_us/HT207260">https://support.apple.com/en\_us/HT205659</a> or

https://support.apple.com/guide/photos/adjust-a-photos-light-exposure-and-more-

pht806aea6a6/mac. For example, on its website, Apple instructs its customers to "Use camera modes," "Take and edit photos," and "Adjust a photo's light, exposure, and more.":

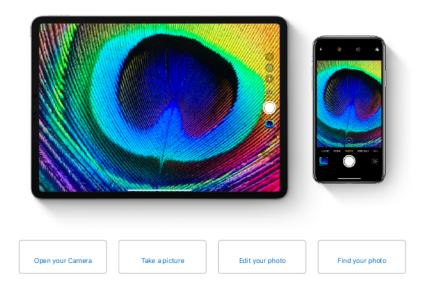
# Use camera modes on your iPhone, iPad, and iPod touch

Learn how to use Portrait, pano, slo-mo, and other camera modes on your device.

See https://support.apple.com/en-us/HT207260.

### Take and edit photos with your iPhone, iPad, and iPod touch

Learn how to take detailed photos with the Camera on your iPhone, iPad, and iPod touch. Then make the moment look just right with the powerful editing tools built directly into your device.



See https://support.apple.com/en-us/HT205659.

## Adjust a photo's light, exposure, and more in Photos on Mac

You can use the Photos adjustment tools to easily change a photo's light and color with optimal results. Using sophisticated algorithms, Photos analyzes your image and applies the correct mix of adjustments to make your photo look its best. You can also reveal detailed controls that let you fine-tune each adjustment, including exposure, highlights and shadows, brightness, and contrast.

🕡 Tip: To quickly see the adjustment tools while editing, press A.

*See* <a href="https://support.apple.com/guide/photos/adjust-a-photos-light-exposure-and-more-pht806aea6a6/mac">https://support.apple.com/guide/photos/adjust-a-photos-light-exposure-and-more-pht806aea6a6/mac</a>.

Exhibit 8 provides additional citations to, and excerpts from, exemplary relevant Apple web pages that demonstrate Apple's specific intent for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '821 Patent pursuant to 35 U.S.C. § 271(b).

- 49. Apple has indirectly infringed at least claims 1, 4, 6, and 7 of the '821 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '821 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '821 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.
- 50. For example, the '821 Accused Products include hardware (camera, image sensors, ambient light sensor, image signal processor (ISP), display processor, application processor,) and software (image processing/correction software, the "Camera" and "Photos" applications). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '821 Patent pursuant to 35 U.S.C. § 271(c).
- 51. Apple has been on notice of the '821 Patent since, at least, May 17, 2018 based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that Apple makes, uses, sells, offers to sell, or imports products that infringe certain of Maxell's patents, and specifically identified the '821 Patent as well as exemplary asserted claims and exemplary accused products for that patent. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 1, 4, 6, and 7 of the '821 Patent.

- 52. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '821 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least May 17, 2018, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '821 Patent, and that the '821 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '821 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '821 Patent.
  - 53. Maxell has been damaged by Apple's infringement of the '821 Patent.

#### COUNT 4 - INFRINGEMENT OF U.S. PATENT NO. 10,129,590

- 54. Maxell incorporates paragraphs 1-53 above by reference.
- 55. U.S. Patent No. 10,129,590 (the "590 Patent," attached hereto at Exhibit 4) duly issued on November 13, 2018 and is entitled *Display Apparatus and Video Processing Apparatus*.
- 56. Maxell is the owner by assignment of the '590 Patent and possesses all rights under the '590 Patent, including the exclusive right to recover for past and future infringement.
- 57. The '590 Patent is directed to a technique for establishing multiple connections between a plurality of apparatuses wirelessly via a radio in order to transmit video information. For example, conventional techniques prior to the '590 Patent connected video processing apparatuses with each other by establishing analog connections to transmit video and audio signals. But with the widespread use of digital videos and the ability of devices to perform multiple tasks at the same time there was a need to implement additional techniques of transmitting video

information while also ensuring that the device could continue to be used for additional functions during transfer of the video.

- 58. Thus, the '590 Patent discloses a technique wherein the video processing apparatus can include multiple radio communication circuits such that these circuits could be controlled to transfer video to another apparatus via one of the circuits while another circuit could be used to allow the video processing apparatus to connect to the Internet or home network. This solution allows the video processing apparatus to transfer video information over a digital connection while also ensuing that it could continue to be used to perform additional functions such as accessing website over the Internet.
- 59. Apple has directly infringed one or more claims of the '590 Patent in this District and elsewhere in Texas, including at least claims 1-10 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhone 11 (A2111), iPhone 11 Pro (A2160), iPhone 11 Pro Max (A2161), SE iPhone (A1662/A1723/A2275/A2296), iPhone XS (A1920), iPhone XS Max (A1921), iPhone XR (A1984), iPhone 8 Plus (A1864/A1897), iPhone 8 (A1863/A1905), iPhone 7 Plus (A1661/A1784), iPhone 7 (A1660/A1778), as well as the iPad mini 5 (A2124/A2126), iPad Pro (12.9") (3<sup>rd</sup> / 4<sup>th</sup> generation) (A1895/A2014/A2229/A2069/A2232), iPad Pro 11" (A1934/A2013/A2068/A2230), iPad (7<sup>th</sup> generation) (A2198/A2200), iPad (6<sup>th</sup> generation) (A1954), iPad Air (3<sup>rd</sup> generation) (A2123/A2153), MacBook Products (MacBook (10,1), MacBook Pro (15,1), MacBook Pro (15,2), MacBook Pro (15,4), MacBook Pro (16,1), MacBook Pro (16,2), MacBook Pro (16,3), MacBook Air (7,2), MacBook Air (8,1), MacBook Air (8,2), and MacBook Air (9,2) (collectively, "the '590

Accused Products"). Attached as Exhibit 9 is a representative claim chart for the '590 Accused Products showing infringement of claims 1-10 of the '590 Patent by exemplary '590 Accused Products. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '590 Accused Products are identified to describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

Apple has indirectly infringed at least claims 1-10 of the '590 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '590 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '590 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <a href="https://support.apple.com/en\_US/manuals">https://support.apple.com/en-us/HT204289</a>, <a href="https://support.apple.com/en\_us/HT204289">https://support.apple.com/en-us/HT204289</a>, <a href="https://support.apple.com/airplay/">https://support.apple.com/guide/mac-help/set-up-bluetooth-sharing-on-mac-mchlp1673/10.14/mac/10.14</a>. For example, on its website, Apple instructs its customers to "AirPlay video and mirror your device's screen" and "Set up Bluetooth sharing on Mac.":

# How to AirPlay video and mirror your device's screen

Use AirPlay to stream or share content from your Apple devices to your Apple TV or AirPlay 2-compatible smart TV. Stream a video. Share your photos. Or mirror exactly what's on your device's screen.

See https://support.apple.com/en-us/HT204289.

### Set up Bluetooth sharing on Mac

Use the Bluetooth pane of Sharing preferences to control how your Mac handles files exchanged between Bluetooth devices (for example, an Android phone). See Share files between your Mac and Bluetooth devices.

Tip: You can share files between your Mac and iOS devices using AirDrop, Handoff, or iCloud.

- 1. On your Mac, choose Apple menu **\*** > System Preferences, then click Sharing.
- 2. Select the Bluetooth Sharing checkbox and set the following options:
  - When receiving items: Choose Accept and Save to save all items sent to your Mac; choose Accept
    and Open to open the items; or choose "Ask What to Do" to decide what to do each time a file is
    sent. If you don't want to accept any items sent to your Mac, choose Never Allow.
  - Folder for accepted items: Choose the folder in which you want to store accepted files. The default folder is the Downloads folder. Choose Other to select a different folder.
  - When other devices browse: Choose Always Allow to let devices browse your Mac, or choose Ask
    What to Do to manually decide what to do each time a device tries to browse your Mac. If you don't
    want other devices to browse your Mac, choose Never Allow.
  - Folder others can browse: Choose the folder on your Mac that other devices can browse. The default folder is the Public folder. Choose Other to select a different folder.

*See* <a href="https://support.apple.com/guide/mac-help/set-up-bluetooth-sharing-on-mac-mchlp1673/10.14/mac/10.14">https://support.apple.com/guide/mac-help/set-up-bluetooth-sharing-on-mac-mchlp1673/10.14/mac/10.14</a>.

Exhibit 9 provides additional citations to, and excerpts from, exemplary relevant Apple web pages that demonstrate Apple's specific intent for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '590 Patent pursuant to 35 U.S.C. § 271(b).

61. Apple has indirectly infringed at least claims 1-10 of the '590 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '590 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be

especially made or especially adapted for use in infringement of the '590 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.

- 62. For example, the '590 Accused Products include hardware (Wi-Fi chipset, cellular chipset, application processor, Bluetooth chipset, memory, and camera) and software (AirPlay software, and Wi-Fi, cellular, and Bluetooth software). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '590 Patent pursuant to 35 U.S.C. § 271(c).
- 63. Apple has been on notice of the '590 Patent since, at least, October 9, 2018 based on correspondence directed to Principal Counsel Heather Mewes at Apple. That correspondence set forth Maxell's belief that certain of Apple's products infringe certain of Maxell's patents, and specifically identified the patent application U.S. Patent Application No. 15/208,886 (the "'886 Application") which would mature into the '590 Patent. At the time Maxell identified the '886 Application to Apple, Maxell specifically stated that the claims of that application had already been allowed. Furthermore, Maxell identified specific allowed claims that Maxell believed were being infringed by certain exemplary identified Apple products. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 1-10 of the '590 Patent.
- 64. Apple undertook and continued its infringing actions despite an objectively high likelihood that such activities infringed the '590 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least October 9, 2018, Apple has been aware of an objectively high likelihood that its actions would constitute infringement of the '590 Patent once

issued, and that the '590 Patent is valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '590 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '590 Patent.

65. Maxell has been damaged by Apple's infringement of the '590 Patent.

#### COUNT 5 - INFRINGEMENT OF U.S. PATENT NO. 10,176,848

- 66. Maxell incorporates paragraphs 1-65 above by reference.
- 67. U.S. Patent No. 10,176,848 (the "848 Patent," attached hereto at Exhibit 5) duly issued on January 8, 2019 and is entitled *Recording and Reproducing Apparatus and Method Thereof*.
- 68. Maxell is the owner by assignment of the '848 Patent and possesses all rights under the '848 Patent, including the exclusive right to recover for past and future infringement.
- 69. The '848 Patent is directed to a recording and reproducing apparatus that makes it easier for a user to navigate through a large number of recorded images and videos. For example, prior to the '848 patent, recording and reproducing apparatuses like smartphones were being used to record a large number of videos and pictures. In order to make it easier for a user to find recorded content, conventional techniques generated a list of thumbnails corresponding to each recorded content, giving the user a type of "preview" of the recorded content. But as the volume of recorded content, including pictures and videos, increases it becomes difficult to identify a specific picture or video simply by looking through thumbnails.
- 70. The '848 Patent discloses techniques that enable a user to identify and search through recorded content more efficiently and effectively. For example, the '848 Patent discloses

executing a face recognizing process on the recorded pictures and allows a user to register pictures of a specific person in an organized manner. Further, the '848 Patent also discloses techniques whereby once a picture of a specific person is registered, future pictures of the same person will continue to be categorized and recorded in association with the previously identified pictures of that person. Such a manner of recording and reproducing images allows users of the recording and reproducing apparatus to navigate and search through pictures and video of a specific person in a more manageable and efficient manner.

Apple has directly infringed one or more claims of the '848 Patent in this District 71. and elsewhere in Texas, including at least claims 8, 10-13, and 15-20 literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale and/or selling its telecommunications technology, including at least Apple products having functionality running materially similar software to iOS 12/13/14, including, without limitation, the Apple iPhone 11 (A2111), iPhone 11 Pro (A2160), iPhone 11 Pro Max (A2161), iPhone SE (A1662/A1723/ A2275/A2296), iPhone XS (A1920), iPhone XS Max (A1921), iPhone XR (A1984), iPhone 8 Plus (A1864/A1897), iPhone 8 (A1863 /A1905), iPhone 7 Plus (A1661/A1784), iPhone 7 (A1660/A1778), iPad mini (5<sup>th</sup> generation) (A2133/A2124/A2126), iPad Pro (12.9") (3<sup>rd</sup> /4<sup>th</sup> generation) (A1876/A2014/ A2229/A2069/A2232), iPad Pro 11" (A1980/ A2013/A2068/A2230), iPad (6<sup>th</sup> generation) (A1893/A1954), iPad (7<sup>th</sup> generation) (A2197/A2198/A2200), and iPad Air (3<sup>rd</sup> generation) (A2152/A2123/A2153) (collectively, "the '848 Accused Products"). Attached as Exhibit 10 is a representative claim chart for the '848 Accused Products showing infringement of claims 8, 10-13, and 15-20 of the '848 Patent by exemplary '848 Accused Products. Maxell reserves the right to discover and pursue any additional infringing devices that incorporate infringing functionalities. For the avoidance of doubt, the '848 Accused Products are identified to

describe Apple's infringement and in no way limit the discovery and infringement allegations against Apple concerning other devices that incorporate the same or reasonably similar functionalities.

72. Apple has indirectly infringed at least claims 8, 10-13, and 15-20 of the '848 Patent in this District and elsewhere in the United States by, among other things, actively inducing the use, offering for sale, selling, or importation of at least the '848 Accused Products. Apple's customers who purchase devices and components thereof and operate such devices and components in accordance with Apple's instructions directly infringe one or more claims of the '848 Patent in violation of 35 U.S.C. § 271. Apple instructs its customers through at least user guides or websites, such as those located at: <a href="https://support.apple.com/en\_us/HT207103">https://support.apple.com/en\_us/HT207103</a>. For example, on its website, Apple instructs its customers to "Find your friends in the People album.":

### Find your friends in the People album

Photos organizes the images of your family and friends in your People album. You'll see a face thumbnail for each person your device recognizes.

- 1. Open the Photos app.
- 2. Tap the Albums tab.
- 3. Tap the People album.

Want to see even more People in your album? Just open a photo of someone that you want to add, then swipe up to see a thumbnail of that person under People. Tap on the thumbnail. Tap Add Name, then type the person's name (or tap the name if Photos suggests it). Tap Next. If the app has found that person's face in any other photos, it shows them to you. Confirm the photos that you want to associate with the name, then tap Done.

See <a href="https://support.apple.com/en-us/HT207103">https://support.apple.com/en-us/HT207103</a>. Exhibit 10 provides additional citations to, and excerpts from, exemplary relevant Apple web pages that demonstrate Apple's specific intent for its customers to use the accused functionality in an infringing manner. Apple is thereby liable for infringement of the '848 Patent pursuant to 35 U.S.C. § 271(b).

- 73. Apple has indirectly infringed at least claims 8, 10-13, and 15-20 of the '848 Patent, by, among other things, contributing to the direct infringement of others, including customers of the '848 Accused Products by making, offering to sell, or selling, in the United States, or importing a component of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in infringement of the '848 Patent, and not a staple article or commodity of commerce suitable for substantial non-infringing use.
- 74. For example, the '848 Accused Products include hardware (camera, memory, image signal processor, image sensors, and application processor) and software (image processing software, and "Camera" and "Photos" applications). These are components of a patented machine, manufacture, or combination, or an apparatus for use in practicing a patented process. Furthermore, such components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Apple is liable for infringement of the '848 Patent pursuant to 35 U.S.C. § 271(c).
- 75. Apple has been on notice of the '848 Patent, and its infringement of the '848 patent, since at least the filing of this Complaint. By the time of trial, Apple will thus have known and intended (since receiving such notice), that its continued actions would actively induce and contribute to actual infringement of at least claims 8, 10-13, and 15-20 of the '848 Patent.
- 76. Upon at least the filing of this Complaint, Apple will have continued its infringing actions despite an objectively high likelihood that such activities infringed the '848 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since, at least the filing of this Complaint, Apple has been aware of an objectively high likelihood that its actions constituted and continue to constitute infringement of the '848 Patent, and that the '848 Patent is

valid. On information and belief, Apple could not reasonably, subjectively believe that its actions do not constitute infringement of the '848 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Apple has continued its infringing activities. As such, Apple willfully infringes the '848 Patent.

77. Maxell has been damaged by Apple's infringement of the '848 Patent.

#### **PRAYER FOR RELIEF**

WHEREFORE, Maxell prays for relief as follows:

- 78. A judgment declaring that Apple has infringed and is infringing one or more claims of '517, '086, '821, '590, and '848 Patents;
- 79. A judgment awarding Maxell compensatory damages as a result of Apple's infringement of one or more claims of the '517, '086, '821, '590, and '848 Patents, together with interest and costs, consistent with lost profits and in no event less than a reasonable royalty;
- 80. A judgment awarding Maxell treble damages and pre-judgment interest under 35 U.S.C. § 284 as a result of Apple's willful and deliberate infringement of one or more claims of the '517, '086, '821, '590, and '848 Patents;
- 81. A judgment declaring that this case is exceptional and awarding Maxell its expenses, costs, and attorneys' fees in accordance with 35 U.S.C. §§ 284 and 285 and Rule 54(d) of the Federal Rules of Civil Procedure;
- 82. A grant of preliminary and permanent injunctions enjoining Defendant from further acts of infringement of one or more claims of the '517, '086, '821, '590, and '848 Patents; and
  - 83. Such other and further relief as the Court deems just and proper.

#### **JURY TRIAL DEMANDED**

Maxell hereby demands a trial by jury.

Dated: July 16, 2020 By: /s/Robert S. Harrell

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